

### **AMENDMENTS TO THE CLAIMS**

1. (Previously presented) A decision support system for evaluating supportability of alternative system architecture designs comprising:

an analytic hierarchy process (AHP) model comprising a plurality of supportability attributes at a first level, wherein said plurality of supportability attributes comprises:

a commonality attribute;

a modularity attribute;

a standards based attribute; and

a reliability, maintainability, testability (RMT) attribute;

an analysis module, adapted to assign relative weights to each supportability attribute on said first level and to perform pair-wise comparisons of said plurality of attributes on said first level;

an evaluation module, adapted to assign a global priority weight (GPW) to each of a plurality of alternative system architecture designs and to compare values of said GPWs of said plurality of said alternative system architecture designs; and

a user interface, adapted to display said GPWs to a user and to receive a selection of a preferred system architecture design based on said comparison of the values of said GPWs.

2. (Previously presented) The system of claim 1, wherein said commonality attribute comprises:

a plurality of sub-attributes of said commonality attribute, said plurality of sub-attributes of said commonality attribute comprising at least one of:

a physical commonality sub-attribute;

a physical familiarity sub-attribute; and/or

an operational commonality sub-attribute.

3. (Previously presented) The system of claim 2, wherein said physical commonality sub-attribute further comprises:

a plurality of sub-attributes of said physical commonality sub-attribute, said plurality of sub-attributes of said physical commonality sub-attribute comprising at least one of:

a hardware (HW) commonality sub-attribute; and/or  
a software (SW) commonality sub-attribute.

4. (Previously presented) The system of claim 3, wherein said hardware commonality sub-attribute comprises:

a plurality of sub-attributes of said hardware commonality sub-attribute, said plurality of sub-attributes of said hardware commonality sub-attribute comprising at least one of:

a number of unique lowest replaceable units (LRUs)  
sub-attribute;  
a number of unique fasteners sub-attribute;  
a number of unique cables sub-attribute; and/or  
a number of unique standards Implemented sub-  
attribute.

5. (Previously presented) The system of claim 3, wherein said software commonality sub-attribute comprises:

a plurality of sub-attributes of said software commonality sub-attribute, said plurality of sub-attributes of said software commonality sub-attribute comprising at least one of:

a number of unique SW packages implemented sub-attribute;  
a number of languages sub-attribute;  
a number of compilers sub-attribute;  
a average number of SW instantiations sub-attribute; and/or  
a number of unique standards implemented sub-attribute.

6. (Previously presented) The system of claim 2, wherein said physical familiarity sub-attribute

comprises:

a plurality of sub-attributes of said physical familiarity sub-attribute, said plurality of sub-attributes of said physical familiarity sub-attribute comprising at least one of:

- a percentage vendors known sub-attribute;
- a percentage subcontractors known sub-attribute;
- a percentage HW technology known sub-attribute; and/or
- a percentage SW technology known sub-attribute.

7. (Previously presented) The system of claim 2, wherein said operational commonality sub-attribute comprises:

a plurality of sub-attributes of said operational commonality sub-attribute, said plurality of sub-attributes of said operational commonality sub-attribute comprising at least one of:

- a percentage of operational functions automated sub-attribute;
- a number of unique skill codes required sub-attribute;
- an estimated operational training time - initial sub-attribute;
- an estimated operational training time - refresh from previous system sub-attribute;
- an estimated maintenance training time - initial sub-attribute;
- and/or
- an estimated maintenance training time - refresh from previous system sub-attribute.

8. (Previously presented) The system of claim 1, wherein said modularity attribute comprises:

a plurality of sub-attributes of said modularity attribute, said plurality of sub-attributes of said modularity attribute comprising at least one of:

- a physical modularity sub-attribute;
- a functional modularity sub-attribute;

an orthogonality sub-attribute;  
an abstraction sub-attribute; and/or  
an interfaces sub-attribute.

9. (Previously presented) The system of claim 8, wherein said physical modularity sub-attribute comprises:

a plurality of sub-attributes of said physical modularity sub-attribute, said plurality of sub-attributes of said physical modularity sub-attribute comprising at least one of:

an ease of system element upgrade sub-attribute; and/or  
an ease of operating system element upgrade sub-attribute.

10. (Previously presented) The system of claim 9, wherein said ease of system element upgrade sub-attribute comprises:

a plurality of sub-attributes of said ease of system element upgrade sub-attribute, said plurality of sub-attributes of said ease of system element upgrade sub-attribute comprising at least one of:

a lines of modified code sub-attribute; and/or  
an amount of labor hours for system rework sub-attribute.

11. (Previously presented) The system of claim 9, wherein said ease of operating system element upgrade sub-attribute comprises:

a plurality of sub-attributes of said ease of operating system element upgrade sub-attribute, said plurality of sub-attributes of said ease of operating system element upgrade sub-attribute comprising at least one of:

a lines of modified code sub-attribute; and/or  
an amount of labor hours for system rework sub-attribute.

12. (Currently amended) The system of claim 8, wherein said functional modularity sub-attribute further comprises:

a plurality of sub-attributes of said functional modularity sub-attribute, said plurality of sub-attributes of said functional modularity sub-attribute comprising at least one of:

an ease of adding new functionality sub-attribute; and/or  
an ease of upgrading existing functionality sub-attribute.

13. (Previously presented) The system of claim 12, wherein said ease of adding new functionality sub-attribute further comprises:

a plurality of sub-attributes of said ease of adding new functionality sub-attribute, said plurality of sub-attributes of said ease of adding new functionality sub-attribute comprising at least one of:

a lines of modified code sub-attribute; and/or  
an amount of labor hours for system rework sub-attribute.

14. (Currently amended) The system of claim 12, wherein said ease of upgrading existing functionality sub-attribute, ~~said plurality of sub-attributes~~ further comprises:

a plurality of sub-attributes of said ease of upgrading existing functionality sub-attribute, said plurality of sub-attributes of said ease of upgrading existing functionality sub-attribute comprising at least one of:

a lines of modified code sub-attribute; and/or  
an amount of labor hours for system rework sub-attribute.

15. (Previously presented) The system of claim 8, wherein said orthogonality sub-attribute

comprises:

a plurality of sub-attributes of said orthogonality sub-attribute, said plurality of sub-attributes of said orthogonality sub-attribute comprising at least one of:

a determination of whether functional requirements are fragmented across multiple processing elements and interfaces sub-attribute;

a determination of whether there are throughput requirements across interfaces sub-attribute; and/or

a determination of whether common specifications are identified sub-attribute.

16. (Original) The system of claim 8, wherein said abstraction sub-attribute comprises:

a plurality of sub-attributes of said abstraction sub-attribute, said plurality of sub-attributes of said abstraction sub-attribute comprising:

a determination of whether the system architecture provides an option for information hiding sub-attribute.

17. (Previously presented) The system of claim 8, wherein said interfaces sub-attribute comprises:

a plurality of sub-attributes of said interfaces sub-attribute, said plurality of sub-attributes of said interfaces sub-attribute comprising at least one of:

a number of unique interfaces per system element sub-attribute;

a number of different networking protocols sub-attribute;

an explicit versus implicit interfaces sub-attribute;

a determination of whether the architecture involves implicit interfaces sub-attribute; and/or

a number of cables in the system sub-attribute.

18. (Previously presented) The system of claim 1, wherein said AHP model further comprises:  
a plurality of sub-attributes of said standards based attribute, said plurality of sub-attributes of said standards based attribute comprising at least one of:

an open systems orientation sub-attribute; and/or  
a consistency orientation sub-attribute.

19. (Previously presented) The system of claim 18, wherein said open systems orientation sub-attribute comprises:

a plurality of sub-attributes of said open systems orientation sub-attribute, said plurality of sub-attributes of said open systems orientation sub-attribute comprising at least one of:

an interface standards sub-attribute;  
a HW standards sub-attribute; and/or  
a software standards sub-attribute.

20. (Previously presented) The system of claim 19, wherein said interface standards sub-attribute comprises:

a plurality of sub-attributes of said interface standards sub-attribute, said plurality of sub-attributes of said interface standards sub-attribute comprising at least one of:

a number of interface standards/number and number of  
Interfaces sub-attribute;  
a determination of multiple vendors existing for  
products based on standards sub-attribute;  
a multiple business domains apply/use standard sub-  
attribute; and/or  
a standard maturity sub-attribute.

21. (Previously presented) The system of claim 19, wherein said hardware standards sub-

attribute comprises:

a plurality of sub-attributes of said hardware standards sub-attribute, said plurality of sub-attributes of said hardware standards sub-attribute comprising at least one of:

a number of form factors and number of LRUs sub-attribute;

a multiple vendors exist for a products based on standards sub-attribute;

a multiple business domains apply/use standard sub-attribute; and/or

a standard maturity sub-attribute.

22. (Previously presented) The system of claim 19, wherein said software standards sub-attribute comprises:

a plurality of sub-attributes of said software standards sub-attribute, said plurality of sub-attributes of said software standards sub-attribute comprising at least one of:

a number of proprietary & unique operating systems sub-attribute;

a number of non-std databases sub-attribute;

a number of proprietary middle-ware sub-attribute;

and/or

a number of non-standard languages sub-attribute.

23. (Previously presented) The system of claim 18, wherein said consistency orientation sub-attribute comprises:

a plurality of sub-attributes of said consistency orientation sub-attribute, said plurality of sub-attributes of said consistency orientation sub-attribute comprising at least one of:



common guidelines for implementing diagnostics and  
performance monitoring/fault localization (PM/FL) sub-attribute;  
and/or

common guidelines for implementing operator machine  
interface (OMI) sub-attribute.

24. (Previously presented) The system of claim 1, wherein said RMT attribute comprises:  
a plurality of sub-attributes of said RMT attribute, said plurality of sub-attributes of  
said RMT attribute comprising at least one of:  
a reliability sub-attribute;  
a maintainability sub-attribute; and/or  
a testability sub-attribute.
25. (Previously presented) The system of claim 24, wherein said reliability sub-attribute  
comprises:  
a plurality of sub-attributes of said reliability sub-attribute, said plurality of sub-  
attributes of said reliability sub-attribute comprising at least one of:  
a fault tolerance sub-attribute; and/or  
a critical points of delicateness (system loading) sub-attribute.
26. (Previously presented) The system of claim 25 wherein said fault tolerance sub-attribute  
comprises:  
a plurality of sub-attributes of said fault tolerance sub-attribute, said plurality of sub-  
attributes of said fault tolerance sub-attribute comprising at least one of:  
a percentage of mission critical functions with single  
points of failure sub-attribute; and/or  
a percentage of safety critical functions with single  
points of failure sub-attribute.

27. (Previously presented) The system of claim 25 wherein said critical points of delicateness (system loading) sub-attribute further comprises:

a plurality of sub-attributes of said critical points of delicateness (system loading) sub-attribute, said plurality of sub-attributes of said critical points of delicateness (system loading) sub-attribute comprising at least one of:

a percentage of processor loading sub-attribute;  
a percentage of memory loading sub-attribute; and/or  
a percentage of network loading sub-attribute.

28. (Original) The system of claim 27 wherein said percentage memory loading sub-attribute comprises a criticality assessment sub-attribute of said percentage memory loading sub-attribute.

29. (Original) The system of claim 27 wherein said percentage network loading sub-attribute comprises a criticality assessment sub-attribute of said percentage network loading sub-attribute.

30. (Previously presented) The system of claim 24, wherein said maintainability sub-attribute comprises:

a plurality of sub-attributes of said maintainability sub-attribute, said plurality of sub-attributes of said maintainability sub-attribute comprising at least one of:

an expected mean time to repair (MTTR) sub-attribute;  
a maximum fault group size sub-attribute;  
a determination of whether system is operational  
during maintenance sub-attribute; and/or  
an accessibility sub-attribute.

31. (Previously presented) The system of claim 30, wherein said accessibility sub-attribute further comprises:

a plurality of sub-attributes of said accessibility sub-attribute, said plurality of sub-attributes of said accessibility sub-attribute comprising at least one of:

a space restrictions determination sub-attribute;  
a special tool requirements determination sub-  
attribute; and/or  
a special skill requirements determination sub-  
attribute.

32. (Previously presented) The system of claim 24, wherein said testability sub-attribute comprises:

a plurality of sub-attributes of said testability sub-attribute, said plurality of sub-attributes of said testability sub-attribute comprising at least one of:

a built-in test (BIT) Coverage sub-attribute;  
an error reproducibility sub-attribute;  
an online testing sub-attribute; and/or  
an automated input/stimulation insertion sub-attribute.

33. (Previously presented) The system of claim 32 wherein said error reproducibility sub-attribute comprises:

a plurality of sub-attributes of said error reproducibility sub-attribute, said plurality of sub-attributes of said error reproducibility sub-attribute comprising at least one of:

a logging/recording capability sub-attribute; and/or  
a determination of whether system state at time of  
system failure can be created sub-attribute.

34. (Previously presented) The system of claim 32 wherein said online testing sub-attribute comprises:

a plurality of sub-attributes of said online testing sub-attribute, said plurality of sub-attributes of said online testing sub-attribute comprising at least one of:

a determination of whether system is operational  
during external testing sub-attribute; and/or

an ease of access to external testpoints sub-attribute.

35. (Previously presented) A decision support system for evaluating the supportability of alternative system architecture designs comprising:

means for assigning relative weights to each attribute and sub-attribute of a plurality of attributes and sub-attributes of an analytical hierarchy process (AHP) model wherein said plurality of attributes comprises:

- a commonality attribute,
- a modularity attribute,
- a standards based attribute, and
- a reliability, maintainability, and testability (RMT) attribute,

comprising:

means for performing pair-wise comparisons of said plurality of attributes and sub-attributes at all levels of said AHP model, and

means for assigning relative weights to all of said attributes and sub-attributes at all levels of said AHP model;

means for generating a global priority weight (GPW) for each of a plurality of alternative system architecture designs comprising:

means for performing pair-wise comparisons of each of said plurality of alternative system architecture designs with respect to said all of said attributes and sub-attributes at all levels of said AHP model; and

means for evaluating said plurality of alternative system architecture designs from a supportability perspective comprising comparing values of said GPWs of said plurality of alternative system architecture designs.

36. (Previously presented) A decision support system that determines global priority weights (GPWs) of alternative system architecture designs comprising:

an analytic hierarchy process engine:

operative to compare a plurality of relative priority attribute weights to generate the GPW of each of the alternative system architecture designs wherein the relative priority attribute weights correspond to a plurality of attributes; and

operative to compare a plurality of relative priority sub-attribute weights to generate each of said plurality of relative priority attribute weights wherein the relative priority sub-attribute weights correspond to a plurality of sub-attributes;

wherein said plurality of attributes comprises

a commonality attribute;

a modularity attribute;

a standards based attribute; and

a reliability, maintainability, and testability (RMT) attribute; and

a user interface, adapted to display said GPWs to a user and to receive a selection of a preferred system architecture design based on said comparison.

37. (Previously presented) A method for evaluating the supportability of alternative system architecture designs comprising the steps of:

(a) assigning relative weights to each attribute and sub-attribute of a plurality of attributes and sub-attributes of an analytical hierarchy process (AHP) model wherein said plurality of attributes comprises:

a commonality attribute,

a modularity attribute,

a standards based attribute, and

a reliability, maintainability, and testability (RMT) attribute,

comprising:

(1) performing pair-wise comparisons of said plurality of attributes and sub-attributes at all levels of said AHP model, and

(2) assigning relative weights to all of said attributes and sub-attributes at all levels of said AHP model;

(b) generating a global priority weight (GPW) for each of a plurality of alternative system architecture designs comprising:

- (1) performing pair-wise comparisons of each of said plurality of alternative system architecture designs with respect to said all of said attributes and sub-attributes at all levels of said AHP model; and

(c) evaluating said plurality of alternative system architecture designs from a supportability perspective comprising comparing values of said GPWs of said plurality of alternative system architecture designs.

38. (Previously presented) The method of claim 37, wherein said commonality attribute comprises:

a plurality of sub-attributes comprising at least one of:

- a physical commonality sub-attribute;
- a physical familiarity sub-attribute; and/or
- an operational commonality sub-attribute.

39. (Previously presented) The method of claim 38, wherein said physical commonality sub-attribute comprises:

a plurality of sub-attributes comprising at least one of:

- a hardware (HW) commonality sub-attribute; and/or
- a software (SW) commonality sub-attribute.

40. (Previously presented) The method of claim 39, wherein said hardware commonality sub-attribute comprises:

a plurality of sub-attributes comprising at least one of:

- a number of unique logical replacement units (LRUs) sub-attribute;
- a number of unique fasteners sub-attribute;
- a number of unique cables sub-attribute; and/or

a number of unique standards Implemented sub-attribute.

41. (Previously presented) The method of claim 39, wherein said software commonality sub-attribute comprises:

a plurality of sub-attributes comprising at least one of:

a number of unique SW packages implemented sub-attribute;

a number of languages sub-attribute;

a number of compilers sub-attribute;

a average number of SW instantiations sub-attribute;

and/or

a number of unique standards implemented sub-attribute.

42. (Previously presented) The method of claim 38, wherein said physical familiarity sub-attribute comprises:

a plurality of sub-attributes comprising at least one of:

a percentage vendors known sub-attribute;

a percentage subcontractors known sub-attribute;

a percentage HW technology known sub-attribute; and/or

a percentage SW technology known sub-attribute.

43. (Previously presented) The method of claim 38, wherein said operational commonality sub-attribute comprises:

a plurality of sub-attributes comprising at least one of:

a percentage of operational functions automated sub-attribute;

a number of unique skill codes required sub-attribute;

an estimated operational training time - initial sub-attribute;

an estimated operational training time - refresh from previous system sub-attribute;

an estimated maintenance training time - initial sub-attribute;  
and/or

an estimated maintenance training time - refresh from previous system sub-attribute.

44. (Previously presented) The method of claim 37, wherein said modularity attribute comprises:

a plurality of sub-attributes comprising at least one of:

a physical modularity sub-attribute;

a functional modularity sub-attribute;

an orthogonality sub-attribute;

an abstraction sub-attribute; and/or

an interfaces sub-attribute.

45. (Previously presented) The method of claim 44, wherein said physical modularity sub-attribute comprises:

a plurality of sub-attributes comprising at least one of:

an ease of system element upgrade sub-attribute; and/or

an ease of operating system element upgrade sub-attribute.

46. (Previously presented) The method of claim 45, wherein said ease of system element upgrade sub-attribute comprises:

a plurality of sub-attributes comprising at least one of:

a lines of modified code sub-attribute; and/or

an amount of labor hours for system rework sub-attribute.



47. (Previously presented) The method of claim 45, wherein said ease of operating system element upgrade sub-attribute comprises:

a plurality of sub-attributes comprising at least one of:

a lines of modified code sub-attribute; and/or

an amount of labor hours for system rework sub-attribute.

48. (Previously presented) The method of claim 44, wherein said functional modularity sub-attribute comprises:

a plurality of sub-attributes comprising at least one of:

an ease of adding new functionality sub-attribute; and/or

an ease of upgrade existing functionality sub-attribute.

49. (Previously presented) The method of claim 48, wherein said ease of adding new functionality sub-attribute comprises:

a plurality of sub-attributes comprising at least one of:

a lines of modified code sub-attribute; and/or

an amount of labor hours for system rework sub-attribute.

50. (Previously presented) The method of claim 48, wherein said ease of upgrading existing functionality sub-attribute comprises:

a plurality of sub-attributes comprising at least one of:

a lines of modified code sub-attribute; and/or

an amount of labor hours for system rework sub-attribute.

51. (Previously presented) The method of claim 44, wherein said orthogonality sub-attribute comprises:

a plurality of sub-attributes of said orthogonality sub-attribute, said plurality of sub-attributes of said orthogonality sub-attribute comprising at least one of:

a determination of whether functional requirements are fragmented across multiple processing elements and interfaces sub-attribute;

a determination of whether there are throughput requirements across interfaces sub-attribute; and/or

a determination of whether common specifications are identified sub-attribute.

52. (Previously presented) The method of claim 44, wherein said abstraction sub-attribute comprises:

a plurality of sub-attributes of said abstraction sub-attribute, said plurality of sub-attributes of said abstraction sub-attribute comprising:

a determination of whether the system architecture provides an option for information hiding sub-attribute.

53. (Previously presented) The method of claim 44, wherein said interfaces sub-attribute comprises:

a plurality of sub-attributes comprising at least one of:

a number of unique interfaces per system element sub-attribute;

a number of different networking protocols sub-attribute;

an explicit versus implicit interfaces sub-attribute;

a determination of whether the architecture involves implicit interfaces sub-attribute; and/or

a number of cables in the system sub-attribute.

54. (Previously presented) The method of claim 37, wherein said standards based attribute

comprises:

- a plurality of sub-attributes comprising at least one of:
  - an open systems orientation sub-attribute; and/or
  - a consistency orientation sub-attribute.

55. (Previously presented) The method of claim 54, wherein said open systems orientation sub-attribute comprises:

- a plurality of sub-attributes comprising at least one of:
  - an interface standards sub-attribute;
  - a HW standards sub-attribute; and/or
  - a software standards sub-attribute.

56. (Previously presented) The method of claim 55, wherein said interface standards sub-attribute comprises:

- a plurality of sub-attributes comprising at least one of:
  - a number of interface standards/number and number of Interfaces sub-attribute;
  - a determination of multiple vendors existing for products based on standards sub-attribute;
  - a multiple business domains apply/use standard sub-attribute; and/or
  - a standard maturity sub-attribute.

57. (Previously presented) The method of claim 55, wherein said hardware standards sub-attribute comprises:

- a plurality of sub-attributes comprising at least one of:
  - a number of form factors and number of LRUs sub-attribute;

a multiple vendors exist for a products based on  
standards sub-attribute;  
a multiple business domains apply/use standard sub-  
attribute; and/or  
a standard maturity sub-attribute.

58. (Previously presented) The method of claim 55, wherein said software standards sub-attribute comprises:

a plurality of sub-attributes comprising at least one of:  
a number of proprietary & unique operating systems  
sub-attribute;  
a number of non-std databases sub-attribute;  
a number of proprietary middle-ware sub-attribute;  
and/or  
a number of non-std languages sub-attribute.

59. (Previously presented) The method of claim 54, wherein said consistency orientation sub-attribute comprises:

a plurality of sub-attributes comprising at least one of:  
a common guidelines for implementing diagnostics and  
PM/FL sub-attribute; and/or  
a common guidelines for implementing OMI sub-attribute.

60. (Previously presented) The method of claim 37, wherein said RMT attribute comprises:

a plurality of sub-attributes comprising at least one of:  
a reliability sub-attribute;  
a maintainability sub-attribute; and/or  
a testability sub-attribute.

61. (Previously presented) The method of claim 60, wherein said reliability sub-attribute comprises:

a plurality of sub-attributes comprising at least one of:

a fault tolerance sub-attribute; and/or

a critical points of delicateness system loading sub-attribute.

62. (Previously presented) The method of claim 61 wherein said fault tolerance sub-attribute comprises:

a plurality of sub-attributes comprising at least one of:

a percentage of mission critical functions with single  
points of failure sub-attribute; and/or

a percentage of safety critical functions with single  
points of failure sub-attribute.

63. (Previously presented) The method of claim 61 wherein said critical points of delicateness system loading sub-attribute comprises:

a plurality of sub-attributes comprising at least one of:

a percentage of processor loading sub-attribute;

a percentage of memory loading sub-attribute; and/or

a percentage of network loading sub-attribute.

64. (Original) The method of claim 63 wherein said percentage memory loading sub-attribute criticality assessment sub-attribute comprises a criticality assessment sub-attribute.

65. (Original) The method of claim 63 wherein said percentage network loading sub-attribute comprises a criticality assessment sub-attribute.

66. (Previously presented) The method of claim 60, wherein said maintainability sub-attribute comprises:

a plurality of sub-attributes comprising at least one of:

an expected mean time to replacement (MTTR) sub-attribute;  
a maximum fault group size sub-attribute;  
a determination of whether system is operational  
during maintenance sub-attribute; and/or  
an accessibility sub-attribute.

67. (Previously presented) The method of claim 66, wherein said accessibility sub-attribute comprises:

a plurality of sub-attributes comprising at least one of:

a space restrictions determination sub-attribute;  
a special tool requirements determination sub-  
attribute; and/or  
a special skill requirements determination sub-  
attribute.

68. (Previously presented) The method of claim 60, wherein said testability sub-attribute comprises:

a plurality of sub-attributes comprising at least one of:

a BIT Coverage sub-attribute;  
an error reproducibility sub-attribute;  
an online testing sub-attribute; and/or  
an automated input/stimulation insertion sub-attribute.

69. (Previously presented) The method of claim 68 wherein said error reproducibility sub-attribute comprises:

a plurality of sub-attributes comprising at least one of:

a logging/recording capability sub-attribute; and/or

a determination of whether system state at time of  
system failure can be created sub-attribute.

70. (Previously presented) The method of claim 68 wherein said online testing sub-attribute comprises:

a plurality of sub-attributes comprising at least one of:

a determination of whether system is operational  
during external testing sub-attribute; and/or  
an ease of access to external testpoints sub-attribute.

71. (Original) The method of claim 37, wherein said step (a) further comprises:

(3) performing sensitivity analysis of said pair-wise comparisons.

72. (Previously presented) A computer program product (CPP) for evaluating system architecture designs using an analytic hierarchy process (AHP) model, said CPP embodied on a computer readable medium having program logic stored therein, comprising:

means for enabling a processor to assign relative weights to each attribute and sub-attribute of a plurality of attributes and sub-attributes of an analytical hierarchy process (AHP) model wherein said plurality of attributes comprises:

a commonality attribute,  
a modularity attribute,  
a standards based attribute, and  
a reliability, maintainability, and testability (RMT) attribute,

comprising:

means for enabling the processor to perform pair-wise comparisons of said plurality of attributes and sub-attributes at all levels of said AHP model, and

means for enabling the processor to assign relative weights to all of said attributes and sub-attributes at all levels of said AHP model;

means for enabling the processor to generate a global priority weight (GPW) for each of a plurality of alternative system architecture designs comprising:

means for enabling the computer to perform pair-wise comparisons of each of said plurality of alternative system architecture designs with respect to said all of said attributes and sub-attributes at all levels of said AHP model; and

means for enabling the computer to evaluate said plurality of alternative system architecture designs from a supportability perspective comprising comparing values of said GPWs of said plurality of alternative system architecture designs.